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Appl. No. 09/911,109
Attorney Docket No. 450100-03355

REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1-52 will be pending. By this amendment claims 1, 25 and 49 have been amended. No new matter has been added.

§ 103 Rejection of Claims 1-3, 6, 9, 11, 25-27, 30, 33, 35, 49 and 52

In Section 4 of the Final Office Action of January 12, 2006 (hereinafter referred to as "Office Action"), claims 1-3, 6, 9, 11, 25-27, 30, 33, 35, 49 and 52 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower et al. (U.S. Patent: 5,983,190; hereinafter referred to as "Trower") in view of Yamamoto (U.S. Patent: 5,923,337).

In the Background section of the Specification, it was stated that "there is recently provided an interactive operation support system, which is set to allow a personified assistant to appear on a display screen, permitting the user to perform input of commands to the equipment in the form of carrying out a conversation face to face with an assistant on the screen."

Specification, page 3, lines 10-15. "However, such a system making it possible to present the status conditions in progress related to such operations on the screen through an assistant has not been developed so far, and as a result, there is no other way other than the user having to wait for response from the system with one's eyes fixed on the screen. It is to be even supposed that if the user gives a command to the system to execute a processing requiring a response time, the user would even misunderstand that the equipment is out of order. . . Thus, it is preferable that, in order to allow the user to operate the equipment based on interaction with the assistant, an

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operationally easy input of a command system produces an effect close to natural language is provided." *Specification, page 4, lines 11-23.*

To address the above-described shortcomings of the conventional interactive operation support system, embodiments of the present invention provide improved system and method for interactive operation support for an apparatus comprising a display unit, a speech input unit, a speech output unit, and an operation control unit. For example, the structure of system claim 1, as presented herein, states that the operation control unit includes:

"an assistant control means for generating a personified assistant and making said assistant appear on a screen of said display unit;

an output speech control means for determining speech required for said assistant to output said assistant's speech to the outside through said speech output unit after speech synthesis;

an input speech recognition means for recognizing user's voice as a speech inputted through said speech input unit;

an interaction management means for managing interaction between said assistant and said user according to said assistant's speech determined by said output speech control means and said user speech recognized by said input speech recognition means;

an ambient state generating means for enabling said personified assistant to act as if urging the user to input commands using the input speech recognition means when the interactive operating system is placed in a wait state; and,

a command interpreting means for specifying a user's intention or specifying said inputted user command based on a content of interaction traced by said interaction management means."

(emphasis added)

Accordingly, in one aspect of claim 1, the operation control unit includes at least an ambient state generating means for enabling the personified assistant to act as if urging the user to input commands using the input speech recognition means when the interactive operating

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system is placed in a wait state. See *Specification*, page 31, lines 24–28; page 36, lines 20–24; and page 40, lines 28–29.

By contrast, Trower fails to explicitly teach or suggest generating an ambient state enabling an animated personified assistant to act as if urging the user to input speech commands when an interactive system is in a waiting state. See *Office Action*, page 5, lines 20–22. As to Yamamoto, the Office Action states, "... Yamamoto teaches such an ambient state generating means." *Office Action*, page 5, line 22 to page 6, line 2. Even assuming that Yamamoto teaches an ambient state generating means, Yamamoto fails to teach or suggest an ambient state generating means for enabling a personified assistant to act as if urging the user to input commands using the input speech recognition means when the interactive operating system is placed in a wait state, as claimed, to meet the invention's objective of providing an improved interactive operation support for an apparatus. Thus, it is maintained that Trower and Yamamoto, individually or in combination, fail to teach or suggest all the limitations of claim 1.

Based on the foregoing discussion, it is submitted that claim 1 should be allowable over Trower and Yamamoto. Since claims 25 and 49 parallel and include substantially similar limitations as claim 1, claims 25 and 49 should also be allowable over Trower and Yamamoto. Further, since claims 2–3, 6, 9, 11, 26–27, 30, 33, 35 and 52 depend from one of claims 1, 25 and 49, claims 2–3, 6, 9, 11, 26–27, 30, 33, 35 and 52 should also be allowable over Trower and Yamamoto.

Accordingly, it is submitted that the rejection of claims 1–3, 6, 9, 11, 25–27, 30, 33, 35, 49 and 52 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

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§ 103 Rejection of Claims 4–5, 12, 17, 19, 22–24, 28–29, 36, 41, 43 and 46–48

In Section 5 of the Office Action, claims 4–5, 12, 17, 19, 22–24, 28–29, 36, 41, 43 and 46–48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, and in further view of Houser et al. (*U.S. Patent: 5,774,859*; hereinafter referred to as “Houser”).

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 4–5, 12, 17, 19, 22–24, 28–29, 36, 41, 43 and 46–48 depend from one of claims 1 and 25, claims 4–5, 12, 17, 19, 22–24, 28–29, 36, 41, 43 and 46–48 should also be allowable over Trower and Yamamoto.

In section 5 of the Office Action it is stated that Houser includes the following claim 4 and 28 limitation: “control means determines speech for leading a user’s interaction when said command interpreting means fails to specify said user’s intention or said inputted user command.” *Office Action, page 8, lines 3–4*. Even assuming that Houser teaches this limitation of claims 4 and 28, Houser yet fails to teach or suggest the remaining limitations of claims 1 and 25 not taught by Trower and Yamamoto, that is, an ambient state generating means for enabling a personified assistant to act as if urging the user to input commands using the input speech recognition means when the interactive operating system is placed in a wait state. Similarly, Houser is cited for teaching additional limitations present in claims 5, 12, 17, 19, 22–24, 29, 36, 41, 43 and 46–48 that are not present in claims 1 or 25, but Houser yet fails to teach or suggest an ambient state generating means for enabling a personified assistant to act as if urging the user to input commands using the input speech recognition means when the interactive operating system is placed in a wait state. Thus, it is maintained that Trower, Yamamoto and Houser, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25.

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Claims 5, 12, 17, 19, 22-24, 29, 36, 41, 43 and 46-48 should therefore be allowable over the combination of Trower, Yamamoto and Houser.

Accordingly, it is submitted that the rejection of claims 4-5, 12, 17, 19, 22-24, 28-29, 36, 41, 43 and 46-48 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 7, 8 and 31-32

In Section 6 of the Office Action, claims 7, 8 and 31-32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto and in further view of Lumelsky et al. (*U.S. Patent: 6,081,780*; hereinafter referred to as "Lumelsky").

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 7, 8 and 31-32 depend from one of claims 1 and 25, claims 7, 8 and 31-32 should also be allowable over Trower and Yamamoto.

Regarding claims 7 and 31, it was stated that Lumelsky discloses "[c]ommunication means for connecting said system to a communication medium such as an external network and/or a telephone line, and a mail exchange means for making an exchange of electronic mails via said communication medium, wherein said output speech control means determines said assistant's speech based on content of an incoming mail." *Office Action, page 11, lines 13-16*. However, even assuming that Lumelsky teaches such a communication means, Lumelsky fails to teach or suggest the remaining limitations of claims 1 and 25 not taught by Trower and Yamamoto. Similarly, Lumelsky is cited for teaching additional limitations present in claims 8 and 32 that are not present in claims 1 or 25. Thus, it is maintained that Trower, Yamamoto and Lumelsky, in combination or individually, fail to teach or suggest all the limitations of claim 1 or

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claim 25. Therefore, claims 7, 8 and 31–32 should be allowable over the combination of Trower, Yamamoto and Lumelsky.

Accordingly, it is submitted that the rejection of claims 7, 8 and 31–32 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 10 and 34

In Section 7 of the Office Action, claims 10 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, and further in view of Crow et al. (U.S. Patent: 6,262,724; hereinafter referred to as "Crow").

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 10 and 34 depend from claims 1 and 25, respectively, claims 10 and 34 should also be allowable over Trower and Yamamoto.

It was stated that Crow discloses the following limitation of claims 10 and 34: "[a]ssistant control means places said personified assistant in a room scattered with various kinds of objects including a link to an information resource, and in response to an interest of said user in a recording medium including a link to a music content placed in said room, said command interpreting means interprets an inputed user command as a command for playing back said music content." *Office Action, page 12, lines 17–21.* Even assuming that Crow teaches this limitation of claims 10 and 34, Crow fails to teach or suggest the remaining limitations of claims 1 and 25 not taught by Trower and Yamamoto. Thus, it is maintained that Trower, Yamamoto and Crow, in combination or individually, fail to teach or suggest all the limitations of claim 1 or

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claim 25. Therefore, claims 10 and 34 should be allowable over the combination of Trower, Yamamoto and Crow.

Accordingly, it is submitted that the rejection of claims 10 and 34 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 13 and 37

In Section 8 of the Office Action, claims 13 and 37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, further in view of Houser, and yet further in view of Volk et al. (*U.S. Patent: 5,687,331*; hereinafter referred to as "Volk").

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 13 and 37 depend from claims 1 and 25, respectively, claims 13 and 37 should also be allowable over Trower and Yamamoto.

It was stated in the Office Action that "Trower in view of Yamamoto and further in view of Houser teach the speech command interface system and method utilizing an interactive animated character and featuring speech-initiated TV channel selection menus, as applied to Claims 12 and 36. Trower in view of Yamamoto, and further in view of Houser do not suggest the use of a ring-based window placed around an animation for channel selection, however, Volk teaches such a ring-shaped window for TV program selection." *Office Action, page 13, lines 14–19.* Even assuming that Volk teaches a ring-shaped window for TV program selection, however, Volk fails to teach or suggest the remaining limitations of claims 1 and 25 not taught by Trower, Yamamoto and Houser. Thus, it is maintained that Trower, Yamamoto, Houser and Volk, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25.

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Therefore, claims 13 and 37 should be allowable over the combination of Trower, Yamamoto, Houser and Volk.

Accordingly, it is submitted that the rejection of claims 13 and 37 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 14 and 38

In Section 9 of the Office Action, claims 14 and 38 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, further in view of Houser, further in view of Volk, and yet further in view of Florin et al. (*U.S. Patent: 5,583,560*; hereinafter referred to as "Florin").

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 14 and 38 depend from claims 1 and 25, respectively, claims 14 and 38 should also be allowable over Trower and Yamamoto.

It was stated in the Office Action that "Trower in view of Yamamoto, further in view of Houser, and further in view of Volk teaches the speech command interface system and method utilizing an interactive animated character and featuring speech-initiated TV channel selection menus containing program information, as applied to Claims 13 and 37. Trower in view of Yamamoto, further in view of Houser, and further in view of Volk does not teach the ability to zoom in on a selected channel, however Florin discloses a picture-in-picture window with the ability to jump to (zoom in on) the channel displayed in the window." *Office Action, page 14, lines 8-14*. However, even assuming that Florin discloses a picture-in-picture window with the ability to zoom in on the channel displayed in the window, Florin fails to teach or suggest the

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remaining limitations of claims 1 and 25 not taught by Trower, Yamamoto, Houser and Volk. Thus, it is maintained that Trower, Yamamoto, Houser, Volk and Florin, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 14 and 38 should be allowable over the combination of Trower, Yamamoto, Houser, Volk and Florin.

Accordingly, it is submitted that the rejection of claims 14 and 38 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 15 and 39

In Section 10 of the Office Action, claims 15 and 39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, further in view of Houser, and yet further in view of Kanerva et al. (U.S. Patent 6,026,416; hereinafter referred to as "Kanerva").

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 15 and 39 depend from claims 1 and 25, respectively, claims 15 and 39 should also be allowable over Trower and Yamamoto.

It was stated in the Office Action that "Trower in view of Yamamoto, and further in view of Houser teaches the speech command interface system and method utilizing an interactive animated character and featuring speech-initiated TV channel selection menus containing program information, as applied to Claims 12 and 36. Trower in view of Yamamoto, and further in view of Houser does not suggest that the menus containing program information are shown in a binder on a display, however, Kanerva teaches such a binder display format." *Office Action*,

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page 15, lines 10–15. However, even assuming that Kanerva teaches such a binder display format, Kanerva fails to teach or suggest the remaining limitations of claims 1 and 25 not taught by Trower, Yamamoto and Houser. Thus, it is maintained that Trower, Yamamoto, Houser and Kanerva, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 15 and 39 should be allowable over the combination of Trower, Yamamoto, Houser and Kanerva.

Accordingly, it is submitted that the rejection of claims 15 and 39 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 16 and 40

In Section 11 of the Office Action, claims 16 and 40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, further in view of Houser, further in view of Kanerva, and yet further in view of Florin.

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 16 and 40 depend from claims 1 and 25, respectively, claims 16 and 40 should also be allowable over Trower and Yamamoto.

It was stated in the Office Action that "Trower in view of Yamamoto, further in view of Houser, and further in view of Kanerva teaches the speech command interface system and method utilizing an interactive animated character and featuring speech-initiated TV channel selection menus containing program information, as applied to Claims 15 and 39. Trower in view of Yamamoto, further in view of Houser, and further in view of Kanerva does not teach the ability to zoom in on a selected channel, however, Florin discloses a picture-in-picture window

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with the ability to jump to (zoom in on) the channel displayed in the window." *Office Action*, page 16, lines 4–10. However, even assuming that Florin discloses a picture-in-picture window with the ability to zoom in on the channel displayed in the window, Florin fails to teach or suggest the remaining limitations of claims 1 and 25 not taught by Trower, Yamamoto, Houser and Kanerva. Thus, it is maintained that Trower, Yamamoto, Houser, Kanerva and Florin, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 16 and 40 should be allowable over the combination of Trower, Yamamoto, Houser, Kanerva and Florin.

Accordingly, it is submitted that the rejection of claims 16 and 40 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 18 and 42

In Section 12 of the Office Action, claims 18 and 42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, in further view of Houser, and yet further in view of Florin.

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 18 and 42 depend from claims 1 and 25, respectively, claims 18 and 42 should also be allowable over Trower and Yamamoto.

It was stated in the Office Action that "Trower in view of Yamamoto, and in further view of Houser teaches the speech command interface system and method utilizing an interactive animated character and featuring speech-initiated TV channel selection menus, as applied to Claims 13, 15, 17, 39, and 41. Trower in view of Yamamoto, and further in view of Houser does

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not teach the ability to zoom in on a selected channel, however Florin discloses a picture-in-picture window with the ability to jump to (zoom in on) the channel displayed in the window.” *Office Action, page 17, lines 7-13.* However, even assuming that Florin discloses a picture-in-picture window with the ability to zoom in on the channel displayed in the window, Florin fails to teach or suggest the remaining limitations of claims 1 and 25 not taught by Trower, Yamamoto and Houser. Thus, it is maintained that Trower, Yamamoto, Houser and Florin, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 18 and 42 should be allowable over the combination of Trower, Yamamoto, Houser and Florin.

Accordingly, it is submitted that the rejection of claims 18 and 42 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 20 and 44

In Section 13 of the Office Action, claims 20 and 44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, further in view of Lumelsky, and yet further in view of Ludwig et al. (U.S. Patent 5,758,079; hereinafter referred to as “Ludwig”).

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1 and 25, and since claims 20 and 44 depend from one of claims 1 and 25, claims 20 and 44 should also be allowable over Trower and Yamamoto.

Regarding claims 20 and 44, the Office Action states, “Trower in view of Yamamoto, and further in view of Lumelsky teaches the speech command interface system and method

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utilizing an interactive animated character capable of accessing and synthesizing e-mail messages, as applied to Claims 7 and 31. Trower in view of Yamamoto, and further in view of Lumelsky does not specifically suggest displaying a new or incoming mail icon in response to the acceptance of mail; however Ludwig teaches an image that indicates the presence of a new e-mail message." *Office Action, page 18, lines 8–13.* However, even assuming that Ludwig teaches an image that indicates the presence of a new e-mail message, Ludwig fails to teach or suggest the remaining limitations of claims 1 and 25 not taught by Trower and Yamamoto. Thus, it is maintained that Trower, Yamamoto, Lumelsky and Ludwig, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 20 and 44 should be allowable over the combination of Trower, Yamamoto, Lumelsky and Ludwig.

Accordingly, it is submitted that the rejection of claims 20 and 44 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 21, 45 and 50–51

In Section 14 of the Office Action, claims 21, 45 and 50–51 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trower in view of Yamamoto, and further in view of Iwamura et al. (*U.S. Patent 5,262,760*; hereinafter referred to as "Iwamura").

Based on the foregoing discussion regarding Trower and Yamamoto and claims 1, 25 and 49, and since claims 21, 45 and 50–51 depend from one of claims 1, 25 and 49, claims 21, 45 and 50–51 should also be allowable over Trower and Yamamoto.

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As to claims 21 and 45, the Office Action states, “Trower in view of Yamamoto teaches the speech command interface system and method utilizing an interactive animated character, as applied to Claims 1 and 25. Trower in view of Yamamoto does not specifically suggest Kanji to Kana text conversion, however Iwamura teaches such a kanji-kana conversion.” *Office Action*, page 19, lines 4–7. However, even assuming that Iwamura teaches such a kanji-kana conversion, Iwamura fails to teach or suggest the remaining limitations of claims 1 and 25 not taught by Trower and Yamamoto. Thus, it is maintained that Trower, Yamamoto and Iwamura, in combination or individually, fail to teach or suggest all the limitations of claim 1 or claim 25. Therefore, claims 21 and 45 should be allowable over the combination of Trower, Yamamoto and Iwamura.

As to claims 50 and 51, the Office Action states, “[c]laims 50 and 51 contain subject matter similar to Claims 21 and 45, and thus, are rejected for the same reasons.” *Office Action*, page 19, lines 15–16. Based on the foregoing discussion regarding claims 21 and 45, and because claims 50 and 51 contain subject matter similar to claims 21 and 45, it is thus maintained that claims 50 and 51 should be allowable over the combination of Trower, Yamamoto and Iwamura for the same reasons as claims 21 and 45.

Accordingly, it is submitted that the rejection of claims 21, 45 and 50–51 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

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Conclusion

In view of the foregoing, entry of this amendment, and the allowance of this application with claims 1-52 are respectfully solicited.

In regard to the claims amended herein and throughout the prosecution of this application, it is submitted that these claims, as originally presented, are patentably distinct over the prior art of record, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes that have been made to these claims were not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes were made simply for clarification and to round out the scope of protection to which Applicant is entitled.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Respectfully submitted,

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